

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

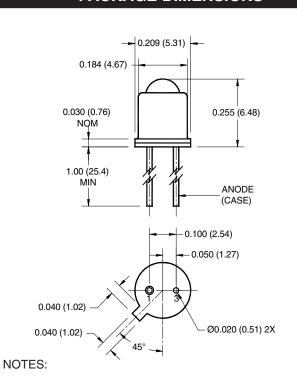






GaAs INFRARED EMITTING DIODE

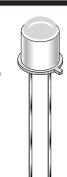
PACKAGE DIMENSIONS



- 1. Dimensions for all drawings are in inches (mm).
- 2. Tolerance of \pm .010 (.25) on all non-nominal dimensions unless otherwise specified.

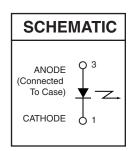
FEATURES

- · Good optical to mechanical alignment
- Mechanically and wavelength matched to the TO-18 series phototransistor
- · Hermetically sealed package
- High irradiance level
- (*) Indicates JEDEC registered values



DESCRIPTION

 The 1N6264 is a 940 nm LED in a narrow angle, TO-46 package.



- 1. Derate power dissipation linearly 1.70 mW/°C above 25°C ambient.
- 2. Derate power dissipation linearly 13.0 mW/°C above 25°C case.
- 3. RMA flux is recommended.
- 4. Methanol or isopropyl alcohols are recommended as cleaning agents.
- 5. Soldering iron tip 1/16" (1.6mm) minimum from housing.
- 6. As long as leads are not under any stress or spring tension
- 7. Total power output, P_O , is the total power radiated by the device into a solid angle of 2 π steradians.

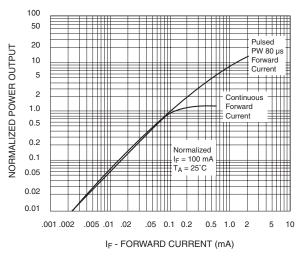
ABSOLUTE MAXIMUM RATINGS (T _A = 25°C unless otherwise specified)								
Parameter	Symbol	Rating	Unit					
* Operating Temperature	T _{OPR}	-65 to +125	°C					
* Storage Temperature	T _{STG}	-65 to +150	°C					
* Soldering Temperature (Iron)(3,4,5 and 6)	T _{SOL-I}	240 for 5 sec	°C					
* Soldering Temperature (Flow)(3,4 and 6)	T _{SOL-F}	260 for 10 sec	°C					
* Continuous Forward Current	I _F	100	mA					
* Forward Current (pw, 1µs; 200Hz)	I _F	10	A					
* Reverse Voltage	V _R	3	V					
* Power Dissipation (T _A = 25°C) ⁽¹⁾	P _D	170	mW					
Power Dissipation (T _C = 25°C) ⁽²⁾	P _D	1.3	W					

ELECTRICAL / OPTICAL CHARACTERISTICS (TA =25°C) (All measurements made under pulse conditions)							
PARAMETER	TEST CONDITIONS	SYMBOL	MIN	TYP	MAX	UNITS	
* Peak Emission Wavelength	$I_F = 100 \text{ mA}$	λ_{P}	935	_	955	nm	
Emission Angle at 1/2 Power	I _F = 100 mA	θ	_	±8	_	Deg.	
* Forward Voltage	I _F = 100 mA	V _{F1}	_	_	1.7	V	
* Reverse Leakage Current	V _R = 3 V	I _R	_	_	10	μΑ	
* Total Power	I _F = 100 mA	Po	6	_	_	mW	
Rise Time 0-90% of output		t _r	_	1.0	_	μs	
Fall Time 100-10% of output		t_f	_	1.0	_	μs	



1N6264 GaAs INFRARED EMITTING DIODE

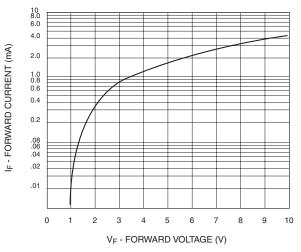
1.4



1.2 Po - NORMALIZED POWER OUTPUT 1.0 0.8 0.6 Normalized 0.4 I_F = 100 mA T_A = 25 C 0.2 0 -50 150 25 50 75 100 125 T_A - AMBIENT TEMPERATURE (C)

Fig. 1 Power Output vs. Input Current

Fig. 2 Power Output vs. Temperature



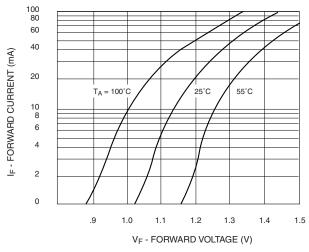
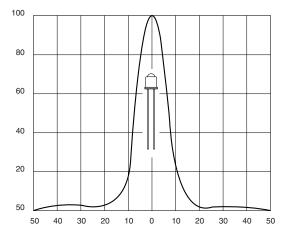


Fig. 3 Forward Voltage vs. Forward Current

Fig. 4 Forward Voltage vs. Forward Current



 $\boldsymbol{\Theta}$ - ANGULAR DISPLACEMENT FROM OPTICAL AXIS - DEGREES

Fig. 5 Typical Radiation Pattern



1N6264 GaAs INFRARED EMITTING DIODE

DISCLAIMER

FAIRCHILD SEMICONDUCTOR RESERVES THE RIGHT TO MAKE CHANGES WITHOUT FURTHER NOTICE TO ANY PRODUCTS HEREIN TO IMPROVE RELIABILITY, FUNCTION OR DESIGN. FAIRCHILD DOES NOT ASSUME ANY LIABILITY ARISING OUT OF THE APPLICATION OR USE OF ANY PRODUCT OR CIRCUIT DESCRIBED HEREIN; NEITHER DOES IT CONVEY ANY LICENSE UNDER ITS PATENT RIGHTS, NOR THE RIGHTS OF OTHERS.

LIFE SUPPORT POLICY

FAIRCHILD'S PRODUCTS ARE NOT AUTHORIZED FOR USE AS CRITICAL COMPONENTS IN LIFE SUPPORT DEVICES OR SYSTEMS WITHOUT THE EXPRESS WRITTEN APPROVAL OF THE PRESIDENT OF FAIRCHILD SEMICONDUCTOR CORPORATION. As used herein:

- Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body,or (b) support or sustain life, and (c) whose failure to perform when properly used in accordance with instructions for use provided in labeling, can be reasonably expected to result in a significant injury of the user.
- A critical component in any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.